

# Current Projects - Rivers and Streams

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## Response of Fish and Habitat to Stream Rehabilitation Practices in Iowa

Stream habitat is recognized as a key factor influencing the health of stream fish populations. Like other Midwestern states, Iowa's river and stream fish resources have been greatly impacted by habitat degradation. Resource managers in Iowa are concerned about the continued degradation of river and stream habitats and fisheries, and are interested in stream rehabilitation practices that effectively improve these resources. There is currently little information available to guide managers in determining which practices are most effective for improving stream habitats and fisheries in their areas, and on what scale these practices must be implemented to produce the desired impact. A study began in 2010 to evaluate river and stream rehabilitation practices in Iowa. This study will help to develop management guidelines for use of stream rehabilitation practices to improve river and stream habitat and fishing opportunities for Iowa anglers.

The first project that we are evaluating is the modification of the Vernon Springs Dam on the Turkey River at Cresco, IA. The dam was converted into a series of rock arch rapids in late July 2010 to address safety and fish passage concerns. Fish community and habitat sampling was completed at three sites above the dam and two sites below the dam. Over 4,400 game and non-game fish were marked below the dam to monitor fish movement over the new structure. Fish community and habitat sampling was also completed at three sites on the Volga River that will serve as control sites for the three upstream sites on the Turkey River. Post-construction sampling of the impoundment above the dam detected 11 black redhorse, 9 golden redhorse, 3 walleyes, and 1 northern hogsucker that moved upstream over the structure. Smallmouth bass and black redhorse were sampled post-construction above the dam at a site on the N. Branch Turkey River where they were not detected in pre-construction.

Pre-project fish and habitat data collection began in 2012 for a dam removal on the Shell Rock River in Rockford, IA, and a proposed whitewater park and habitat improvement project at the site of the Marion Street Dam on the Maquoketa River in Manchester, IA. Continued monitoring of these projects, and investigations of additional stream rehabilitation projects will help to guide decision making and lead to improved methods, designs, and allocation of resources for improving Iowa's river and stream fisheries.

